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ARCHITECTURAL GARDENS OF ITALY.*

A REVIEW BY H. VAN BUREN MAGONIGLE.

(Continued.)

THE Villa Giacomelli at Cornuda possesses no features of excellence. The grotto, backed by a dense grove, principally conifers, is ambitious but devoid of taste, the Casino is inharmonious in design, the entrance commonplace and the illustration of it here has only the value of its comparison with better things.

One of these is the Villa Farnese at Caprarola, (sometimes known by the latter name) a few miles from the Villa Lante. Here the Casino is set at about the centre of the garden plan, blocking the principal axe. On comparing this with the Villa Lante, where, by leaving this axis free, and a careful study of the terrace heights, an unobstructed view of the whole length of the garden is attained, the superiority of the latter is manifest. One misses also, the presence of trees and their grateful shade in the formal part, forming a link which ties it to the outlying park.

The Casino itself is one of the most charming in Italy. Plate No. 31 exhibits the facade upon the upper level. To right and left are staircases which descend to a lower plane enclosed on three sides by a low wall interrupted at intervals by the pedestals of fascinatingly ugly caryatides or termini, with seats between them.

A word here as to the unfortunate result of isolating an attenuated object such as a statue or terminus, without either a proper setting of greenery or providing it with a background of trees such as we find here. It is too often done and seldom without disastrous results. Here, from almost any point of view, these points of accent are thrown upon a screen of foliage which serves to unite them.

The robust and florid forms of the architectural elements of this Villa are singularly appropriate to garden uses. Lines too severe, too "pure," (to use that much abused word) a classical restraint, have an effect of paucity of form and shadow-color when brought into direct relations with mother earth as in a garden. A bolder, freer treatment of these adjuncts, with something of the grotesque about it allies them more completely with the broken lights and shadows of the adjacent foliage. In reviewing many memories of examples of handling of these things, I recall hardly an instance when the so-called purer architecture, indisputably more beautiful in itself, seemed to "belong" as do these more wanton forms.

From the Caryatide Garden two semicircular stairways with a superb grotto and basin between them, lead to a long ramp divided by a fountain in a succession of steps, at the lower end of which is a quadrangular space with a circular fountain. On the highest level of the garden are reservoirs which recall those in the Villa D'Este, (Plate 34) and the vista on the principal axis is partly closed by six niched piers arranged in a semicircle. (Plate 36).

Plate No. 37 is a view up a spacious garden stairway in the Villa Corsini near Rome, the upper flight divided in the centre by a fountain—one of the most charming plates in the book.

Plate No. 38 shows a part of the garden of the Villa Ruspoli, another of the Roman group, with hedges in an intricate design and some fine cypresses.

It is hard to imagine the Pope leading the jolly life of the song in the Vatican Gardens, (Plates 39 to 45 inclusive). Here and there is an amusing corner but most of it is dry, stale and unprofitable. "I would not be the Pope." The Rotunda (so-called) and Casino of Pius IV are of course among the gems of the Renaissance casket, and hardly need a setting.

Of the actual gardens of the Villa Borghese little remains but indications of their former extent. How far Percier et Fontaine are to be trusted in this case (one of their plans I believe is given in Plate 46) it is hard to say. From their cheerful disregard of facts in other cases perhaps *cum grano salis*.

The park is of vast extent with magnificent distances, and splendid vistas through plantations of great trees. At certain *rond points* at their intersections are very fine fountains, (Plates 53 and 54).

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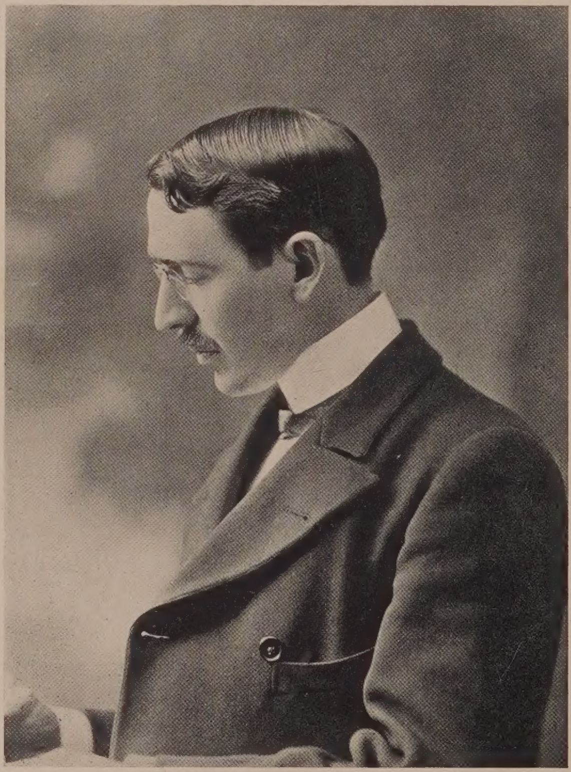
* "Architectural Gardens of Italy." A Series of Photogravure Plates from Photographs made for and selected by A. Holland Forbes, Editor of Architecture. In three portfolios. Limited to seven hundred and fifty numbered sets. Subscription, $37.50. New York: Forbes & Company, Ltd., 160 Fifth Avenue.

The most salient points of interest are the forecourt in front of the Casino (Plates 58, 59 and 60) and the beautiful grassy amphitheatre (Plate 56). The balustrade enclosing the former is one of the best in Italy, most cleverly treated to adapt it to the slope of the court.

Scattered about here and there in the park are various architectural aberrations in stucco in the false taste of a latter time. They seem, after making allowances for the material of which they are constructed, to bear out the contention made above in favor of freer forms in garden architecture.

Part I closes with two views of the Villa Catena at Poli. There is a certain melancholy charm about the old gateway possessed in common with many of the half deserted Villas of Italy; poverty and ensuing neglect have had their way with many of them.

(*To be continued.*)

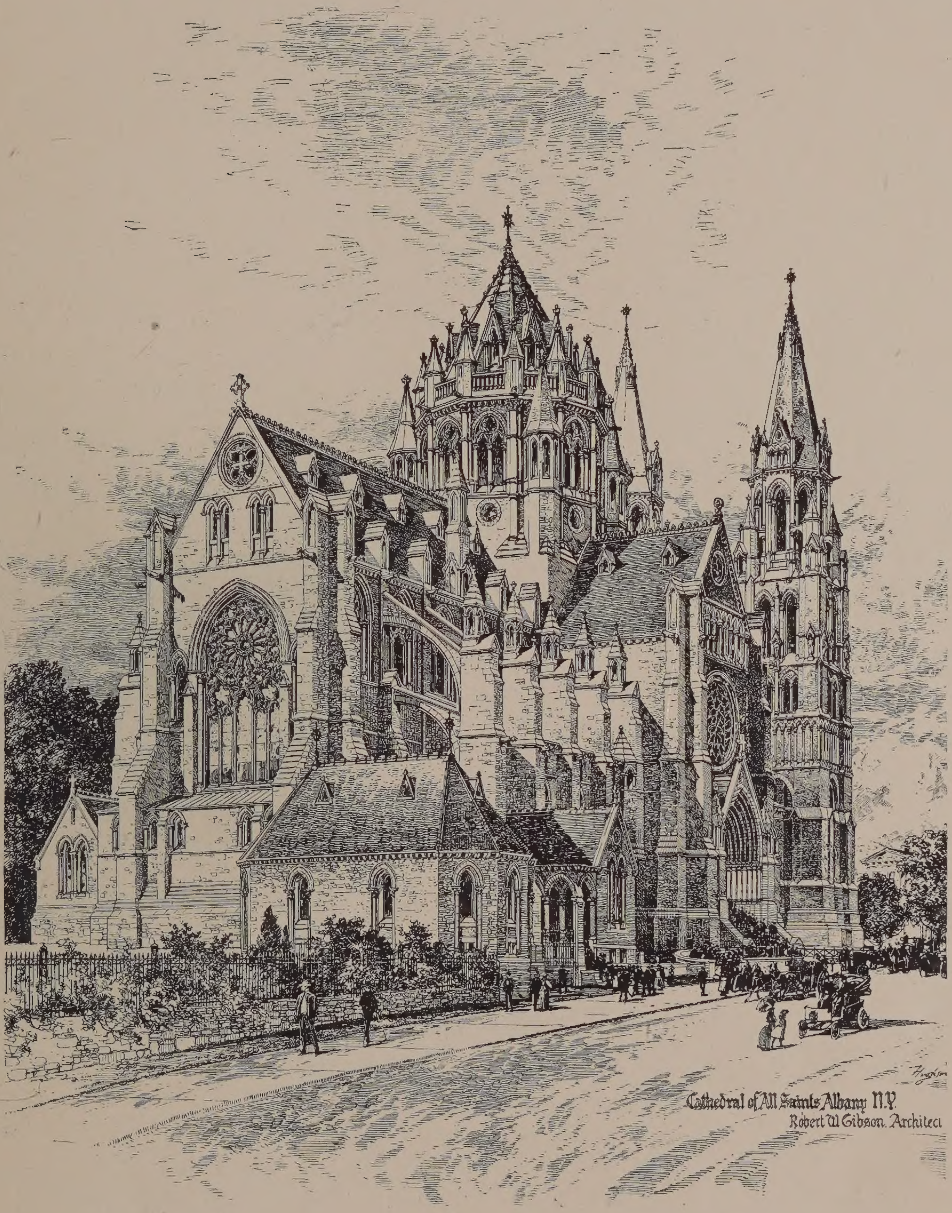


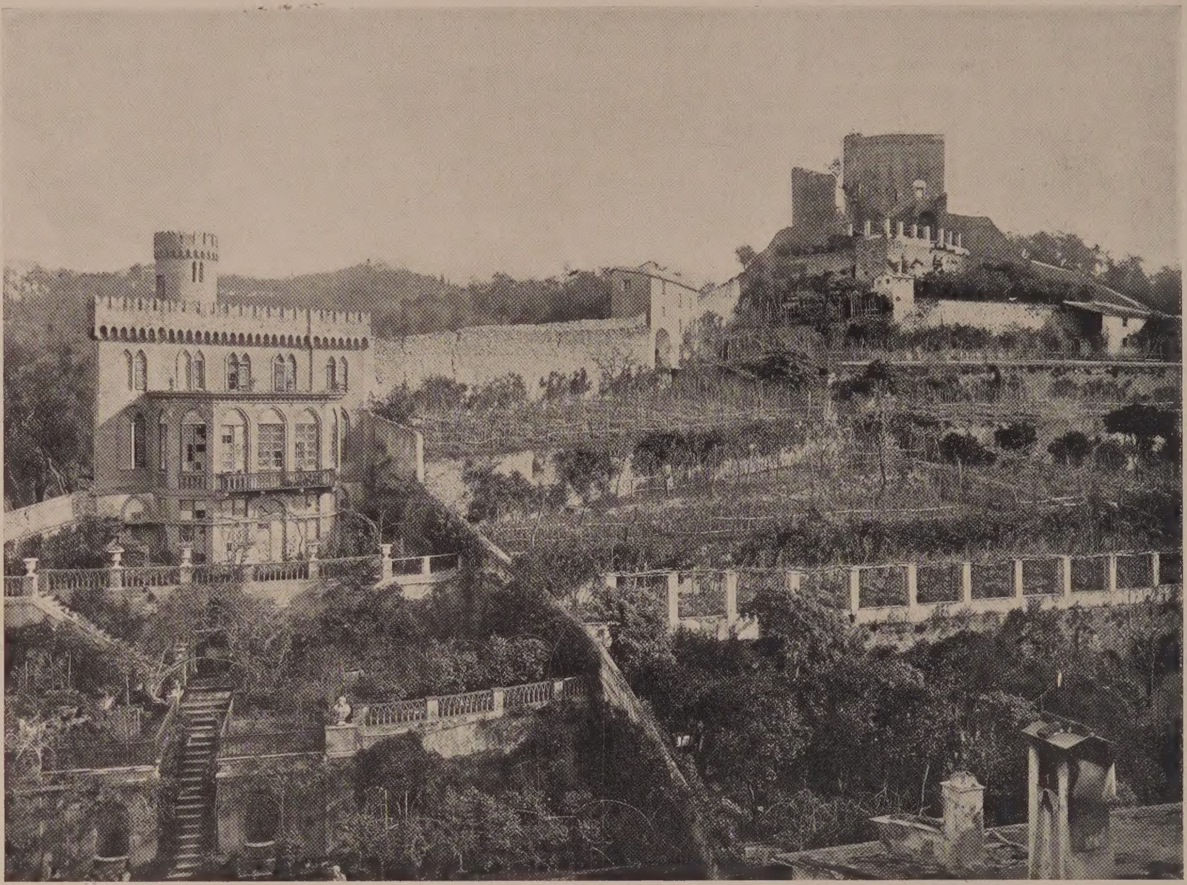
Architects of To-day—X.

MR. H. VAN BUREN MAGONIGLE.

THE American architect is beset with innumerable hindrances and perplexities, not the least of these being the preliminaries through which he has to pass before he is prepared to begin his work. If well known in his profession he is overwhelmed with solicitations and catalogues from manufacturers and trade firms: they pour in upon him at every post—that makes it necessary that this literature should be quickly digested or disposed of through means of the waste-paper basket. Quicker they come, quicker they go; there must be an outlet as well as an inlet for them; the consequence of which is that the few deserving ones are thrown out with the worthless, and are not even read. *A strong reason, perhaps, that what the manufacturer or firm has to say should take a more permanent form in a professional journal like* Architecture. As it is, a great deal of information of much value to the architect and worth his digestion is thrown away as so much rubbish because of the enormous output and the demand it makes on him to read and consider it. In the choice of goods and the selection of fittings and decorative work, the younger man must necessarily depend on the recommendations of others and on his own judgment and sense of the fitness of things. To a large extent in matters like sanitary fittings the experience of impartial persons must be taken. "Self-praise is no recommendation," so that we must take care that we steer clear of the mere puff. A kind of selective process is unconsciously at work in this matter. The architect's experience and judgment gradually make a choice. He specifies certain firms or their fittings on every occasion; the same names and types are introduced, and he seldom troubles to make any inquiry as to the claims of new inventions. Such conservatism of taste cannot, of course, always be right; new and better things may come into the market, and it is a duty he owes to himself and his client to make himself acquainted with them, so that he may determine whether any real improvement has been made. *Attention, therefore, should be given to advertisements, which appear in the architectural journals or the architect may find himself a little out-of-date.* It must not be assumed that a fitting—say a sanitary fixture—is the best arrangement in every circumstance; that because it answers in one situation or on the ground or first floor, it will also be the same on the upper floor. Simpler arrangements are required in factories and workshops or dwellings for the laboring classes. Those suitable for an ordinary dwelling are out of place in a workman's cottage, and this modification and adjustment ought to apply in other directions. Not only position in the same building, but locality, environment, and personal taste ought each to be consulted in the choice of fittings and decoration, though we are constrained to say that these factors are not always studied by the ordinary practitioner—that the same types and patterns are used everywhere, and always without any discrimination or discernment of adaptation.

UNDER the name of alteration a great deal is done that would be better left untouched. Great designs and buildings have been tampered with and spoiled by the removal of something that gave them their character, or by additions to a building that was only designed in the first instance to have a definite elevation, or by unsympathetically adding to a facade which was complete in itself. How many buildings have been thus ruined? Few architects cannot remember some particular instance where a building designed with special reference to a site, having proportions and a distinct character of its own, has been completely spoiled by the addition of a new wing or a few bays of windows. What was pleasing and picturesque before, now appears ill-shaped and out of proportion. It is worse to meddle with a building of Classic design, having regular features and balanced parts, than it is to make alterations to old or irregular buildings, though in both cases much may be marred. In the first place, in every design there is a unit of composition that ought to be preserved; by which we mean a salient part of the building, by obliterating which or disregarding it failure results. The unit of a Classic building is often its entire facade, a centre or portico and its wings, by removing or destroying any part of which the design is entirely marred. We can add to each side, bring forward or return backward, a wing, or both, but we cannot alter or modify the composition without destroying it. Thus we cannot well add a second portico, or make one wing longer than the other. The Classic scheme being complete in itself, we cannot repeat it, add to, or alter it without risk of


Cathedral of All Saints Albany N.Y.
Robert W Gibson. Architect



CHIARARI, NEAR GENOA. A TERRACE-GARDEN.

marring the composition. A building in an informal style admits of variation: we can add a gable of different size, or reverse any unit of the composition. Thus we may place two or three gables together, repeat a bay window or a projecting wing, that will only give variety to the whole. The modern alterer ought to thoroughly understand the alterations necessary to be made, should do his work in sympathy with the old building—that is to say, he ought to understand thoroughly its structure, and keep in view, if possible, the intention and "keynote" of the original design.

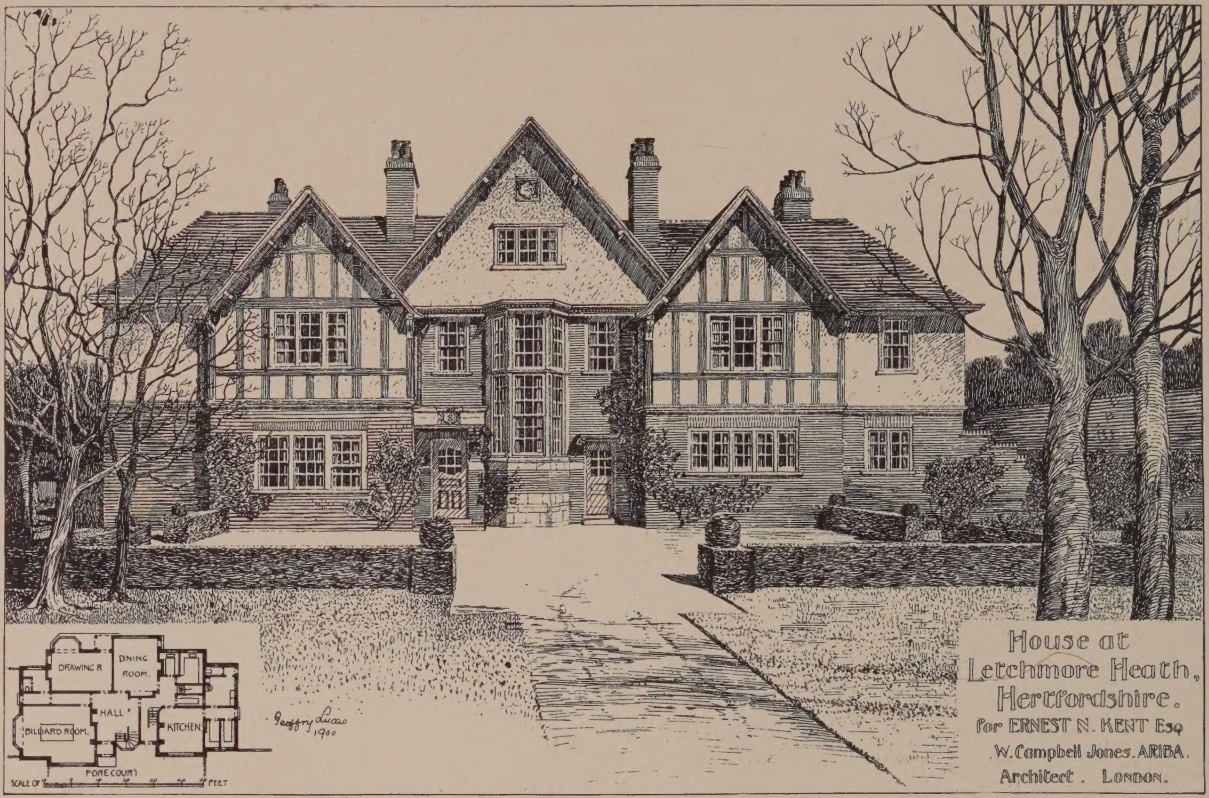
IN arranging a building for wind-brace sections, sometimes the floor plans will permit a symmetrical arrangement of the cross-section in which the wind-bracing is to be put. Frequently, however, no such desirable arrangement is possible, and only certain sections can be utilized; this complicates matters somewhat, but careful study will usually permit a satisfactory solution of the problem. In some instances, due to the great uplift on the windward side or to the lightness of the wall carried by the column, the weight of an adjoining column has to be engaged to contribute its load to the load on the wind-brace column, which is done by means of a stiff diagonal strut. This condition is met with only in high and narrow buildings. Where each line of columns in a cross-section through the building is not utilized as a stiff section, the lines not so braced should be attached by means of a floor system to the stiff section, so that the unstiffened sections shall transfer their wind loads to the stiff sections at each floor or every other floor. This is best done by a system of diagonal rods below the finished floor line with turnbuckles for tightening them up. Wind-bracing in a high building performs, during and after erection, the very practical office of facilitating erection by enabling the columns to be maintained in their correct vertical position, for with the best shop work the play of the temporary bolts in the holes is sufficient to allow a serious deviation from the vertical to occur, and with the temporary bracing of wood struts, this can rarely be prevented. Departures from the vertical of 2 inches in a height of 100 feet can readily occur, and are not noticeable except when compared with a plumb line. Wind-bracing can be made of certain lengths to fit between the columns, and requires that each column shall be in its proper place before the bracing will fit, so that no great error can accumulate. Great care, however, must be used to see that the columns are vertical before the riveting is done.

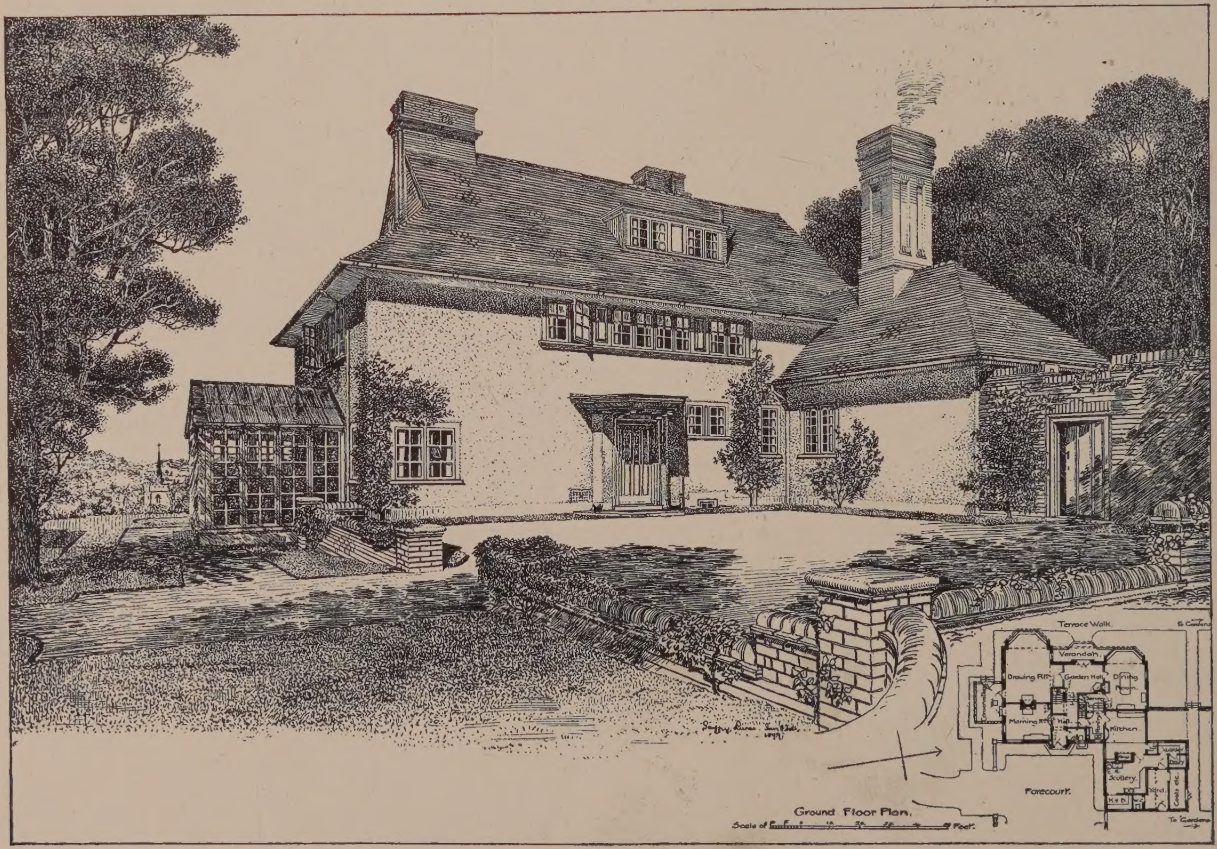
PROFESSIONAL EDUCATION.

C. H. DAY.

AN attempt has been made by many who inculcate the principles of architecture and of education amongst the younger members of the profession, to elevate the subject, and to lift the teaching of the art to a higher plane. Some professors and instructors of the art dwell on the questions of beauty and of taste, others speak of the need of cultivating the imagination, of artistic inspiration, of the importance of the study of nature, of proportion, of color. In an essentially prosaic profession it is necessary to dwell on the higher ideas and attributes of art in the abstract. Building in itself is particularly practical and utilitarian, and a mind absorbed in bricks and mortar, and the every-day requirements of construction cannot rise always to the occasion, or to the "high calling" of art. The ordinary building mind has a tendency to fall to the level of the workman, to become so engrossed in matters of detail as to become narrow and excessively matter-of-fact in everything else. Nothing can be so engrossing as building construction and the practice of measuring or estimating builders' work: they are exercises which give the mind or the imagination very little desire or aptitude for the artistic side of the architect's vocation. There is nothing in such work to inspire the emotions or give wing to the imagination. We cannot wonder, then, at the great cleavage there is between the practical and the art following of the profession, and why it is so hard for an architect who has once obtained a general every-day practice to turn his attention to buildings of a monumental or artistic character; nor can we be surprised to find his earlier taste for art losing its keenness as the duties of practical life increase, and with it the absorbing attention to details. Mr. Emerson, President of the Royal Institute, in his address to students the other day, spoke of the value of methodical habits as tending to the avoidance of worry, than which there is nothing so prejudicial to artistic effort. A worried brain is too restless to concentrate attention on any work of this kind. For creative efforts and the thought necessary in conception, the mind should be perfectly easy and at rest. No great work or design has ever been done in a hurry: it cannot be forced, but must come as a spontaneous effort of the mind, the reason why the busy architect with a large practice is so often feeble and commonplace in his designs and details, while many of the most able designs and the happiest conceptions have been produced by men with leisure. These considerations invite us to inquire whether our modern architectural practice is best for the development of gifts of a high order. It will be argued by some that the art function is better practised by men who can confine their whole time and attention to art, and that in the case of architecture these functions may be divided—there may be designers of churches and monuments, of secular and commercial, of domestic buildings. and so on. They would separate the designer from the practical builder; but such a distinction has been to some extent in force. There has been an unreality about such a division, and it has to a large degree contributed to make the practical man more forgetful of art, and to loosen the bond between it and building. Nor has it done anything to elevate the designing of buildings as a special science. Then we take a number of commissions, including many given to the leading men of the profession, who receive their five per cent. for works of a very diverse kind. Can it be honestly said that art improves by multiplying the number of its applications? We think not. Is it not better that an architect should bring his art into touch with a certain class of buildings, so that he may be able to throw his energies into certain channels, that his best thought and artistic skill may be devoted to his purpose? We know that there was no separation between designing and building amongst the old masters;—the designer and builder went together, though the scope of his work was limited. He did not tackle houses and shops and churches and hospitals as the modern architect does, but expended his best thought and art in the design and execution of buildings that have been models for all time. By making materials and

THE ROYAL VILLA AT POGGIO A CAIANO, NEAR FLORENCE. A WATERSIDE WALK.





SKETCHES FOR ENGLISH COUNTRY HOUSES. W. Campbell Jones and Geoffry Lucas, Architects.

construction the vehicle of his art in one or two directions, he overcame the modern danger of lapsing into a mere prosaic builder or unreal draughtsman. His work was inspired by a common enthusiasm; his aspirations were kindled with the desire to express the thought and requirement of his age in his buildings. Now it is otherwise: the architect becomes either an expert building surveyor or a mere designer of buildings in general. If we complain of the prosaic, matter-of-fact tendency of our practice it is chiefly because we have not learned to understand and appreciate this wholesale kind of practice—the reaction there exists between craftsmanship and building. We have considered them as distinct too long, and our method of teaching has been largely at fault in promoting the study of architectural style apart from building.

The education question has been urged from opposite standpoints. There are those who would make it a compulsory pressure from without, and those who would inculcate the instruction of the student from his own internal convictions without pressure. The great majority of those who enter the profession are accidentally thrown into it. The old architects—those who have left their works and their mark during the Middle Ages and the Renaissance, to say nothing of the ancient practitioners—were men who had an intuitive gift for the work, or at least the bulk of them. Beyond their apprenticeship to certain crafts, there was nothing compulsory about their education—they learned the traditions handed down from father to son. But the conditions of modern architectural practice have changed;—it now becomes necessary to qualify those who enter the profession as a living, but have no particular *penchant*. The ranks of the profession have multiplied enormously since the days of the early pioneers of the Italian Renaissance. With them a compulsory examination, or even a curriculum of knowledge was not required, nor even thought of. It has been reserved for the Twentieth century to "manufacture" architects: they are no longer all born artists as formerly. Hence the necessity of providing schools and establishing sources of instruction.

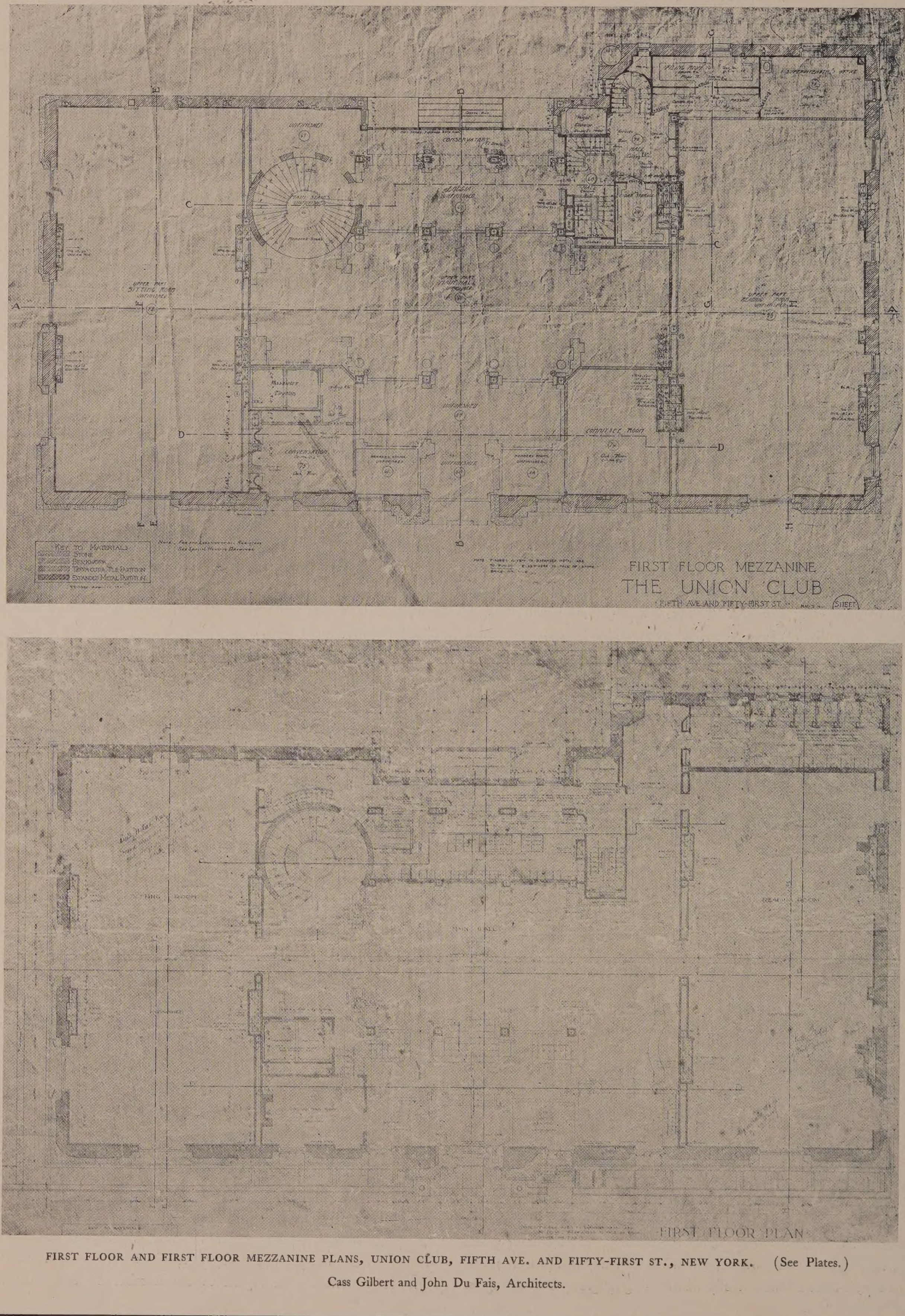
A serious omission in some of the architectural courses as we have seen is the neglect of the special principles of architecture. The submission of designs of buildings does not teach the student the elements of construction, or such artistic matters as composition, proportion, grouping, light and shade, color, and other æsthetic elements, which ought to be taught in a systematic manner as in the architectural schools in France and Germany. We quite agree that it is desirable, from a due sense of the importance of architecture as a professional study, that architects should receive a higher education than they have been receiving. At the same time a general education will not entirely compensate for a neglect of special architectural subjects, such as a thorough knowledge of materials of construction in various directions, of details, of building appliances, and of a proper knowledge of composition and proportion and color. These are questions that can be learned only by helpful and systematic instruction by men of reputed skill in their art.

DESIGNING.

J. R. ROSS.

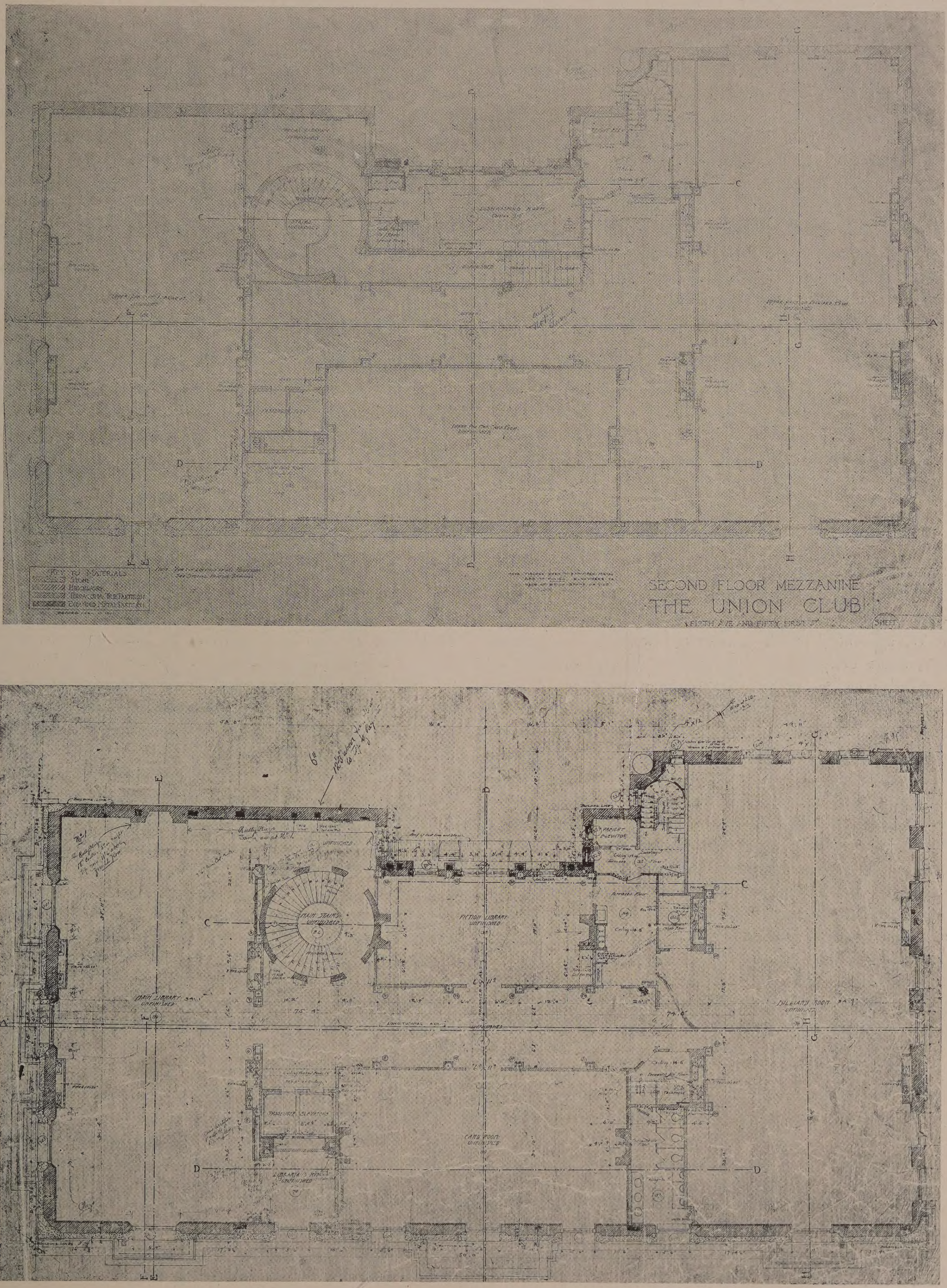
THERE are two ways of treating a building or a group; one is to prepare a design for a building, so to say, in the mass or in the lump; the other way is to design it with care for details. The architect's method of designing in the mass has one advantage, and it is an important one, over the detailed or analytical process; that is to say, it allows him to study his building or group of buildings as a whole, to grasp their general effect and grouping. In the initial stages of design it is generally a good plan to think out the scheme to a small scale, disregarding constructive details and fittings; and the practice of inviting small sketch designs for important public buildings, to select a general scheme before a second or final competition, has many advantages. On the other hand a man may be a skillful planner, and pay particular attention to his details of construction, and yet be quite unable to compose a decent exterior. We have to consider these two classes of designers. In the profession they can be distinguished broadly into those who take special branches, and those who are general practitioners; but this is not always true. We feel that mental constitution has something to do with the distinction. Some men can grasp better than others; they look at a building as a composition, as a piece of design or a piece of music, not as a mere collection of apartments and trades; they cannot break themselves up, to use a Ruskinian phrase, into "segments of men," to study details of construction, or even of plan, or to take a special delight in any craft. These men are good organizers and marshallers of facts, but they have a distaste for dry details or analysis. Others, as we know, are masters of detail and of construction, or of plan, and they like to begin their design by looking at the problem as made up of several pieces or factors without much regard to external unity or cohesion. But then there is another class, who like "lumping" their designs; in other words, they look at the design really as consisting of so many sheets of drawings for contract, for whom this plan of regarding buildings is more profitable. To them detail is simply regarded as troublesome and profitless. We must take care to distinguish between the first and last kinds of designers. The first is a born artist; the latter the average and perfunctory practitioner, who avoids detail because it means extra work, and if he can get his five per cent. commission on a set of drawings to an eighth of an inch scale and a set of specifications, with general supervision, without extra labor in preparing details, so much the better it is for him. Our readers will see at once that this is not the kind of "lumping" that will commend itself to the true artist or conscientious architect. The modern type of professional Philistine who has a large general practice is an adept at showing as little detail as he can, leaving all construction, fittings, and decorations to the general or sub-contractors. To such men it is very convenient to adopt an eighth of an inch scale, to hatch over or color with a dark tint all sections of floors and roofs, to show nothing definite of any internal detail or decoration. Special firms and sub-contractors like indefiniteness of finish and vagueness, because it leaves them with a free hand, and does not bind them to any design. The "lumping" system of this kind is a rather contemptible way of doing as little as possible, and of avoiding details.

As a good deal of our everyday architecture is the result of one or other of these systems of design, the subject deserves more consideration than has been bestowed upon it. It will be admitted that there are some kinds of building where attention to detail is paramount. All those built for special objects like a technical institute, a restaurant, or building to be used as a laboratory, stand on a different footing to the ordinary block of offices or dwellings. A special function has to be studied in each. The architect would not be doing wrong if he began with the requirements of the function, whatever it was; that is, designing with some minuteness the bar, its fittings, and space for customers, or the technical classroom with its special fittings, or the bath, as the case may be, and making it the nucleus of the building. A hospital specialist would begin to arrange one of his wards, in regard to the number of beds, the floor



FIRST FLOOR AND FIRST FLOOR MEZZANINE PLANS, UNION CLUB, FIFTH AVE. AND FIFTY-FIRST ST., NEW YORK. (See Plates.)

Cass Gilbert and John Du Fais, Architects.



SECOND FLOOR AND SECOND FLOOR MEZZANINE PLANS, UNION CLUB, FIFTH AVE. AND FIFTY-FIRST ST., NEW YORK. (See Plates.)

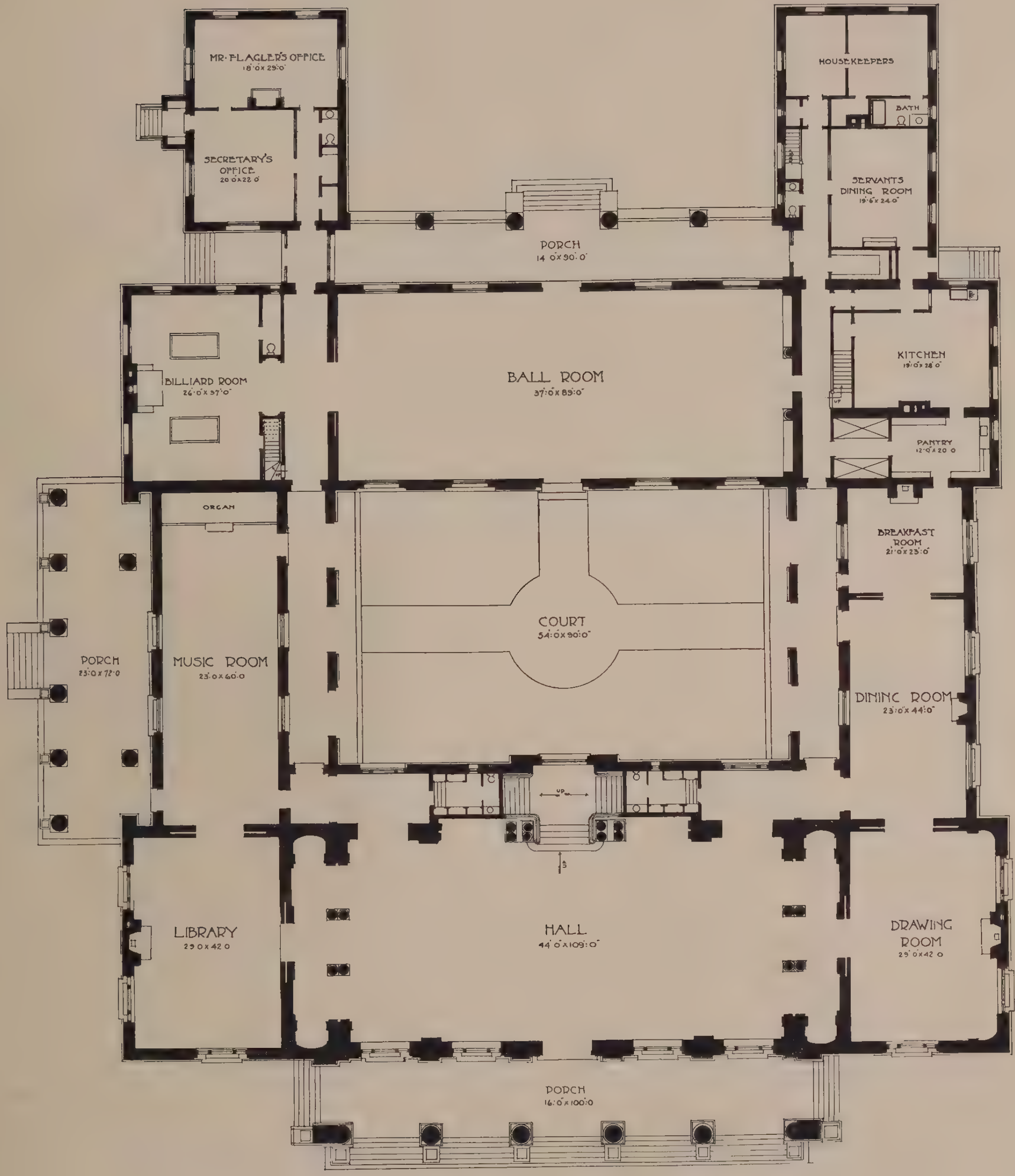
Cass Gilbert and John Du Fais, Architects.

superficial to each, the position of windows, at one end the closets and bath-rooms and isolating lobbies, at the other the nurses' rooms and adjuncts, before he thought of making the design for one pavilion. In this manner he would be logically working out the problem in the best manner, avoiding any waste of space or material. Or to take a large block of shops with residences over. It would be advantageous to commence with one of the shops and its fittings, staircases, to give details of the kind of fire-resisting floor and the ironwork construction, girders required and their strength ; in short, to study the detail before settling upon the general scheme. Having decided upon these details of construction, it is easier to make the general design to clothe, as it were, the skeleton of construction with suitable dress. The contrary method would entail expense or alteration. In many buildings construction enters largely in the shape of flooring, roofs, galleries, &c., as they would in a theatre or public hall ; in all such undertakings the architect, who is a master of detail, has the best chance of success. Sometimes a large engineering plant has to be arranged for, as in heating and ventilating a theatre, in which case the special qualifications of the architect are called for, or he must perforce be compelled to find to his cost that his provisions are insufficient for the requirements of the engineer. We could instance many buildings that cost their promoters a heavy extra percentage above the contract, owing to the imperfect provisions made for heating and other apparatus ; they are of constant occurrence. The man who knows the details must necessarily become the more successful architect for such works.

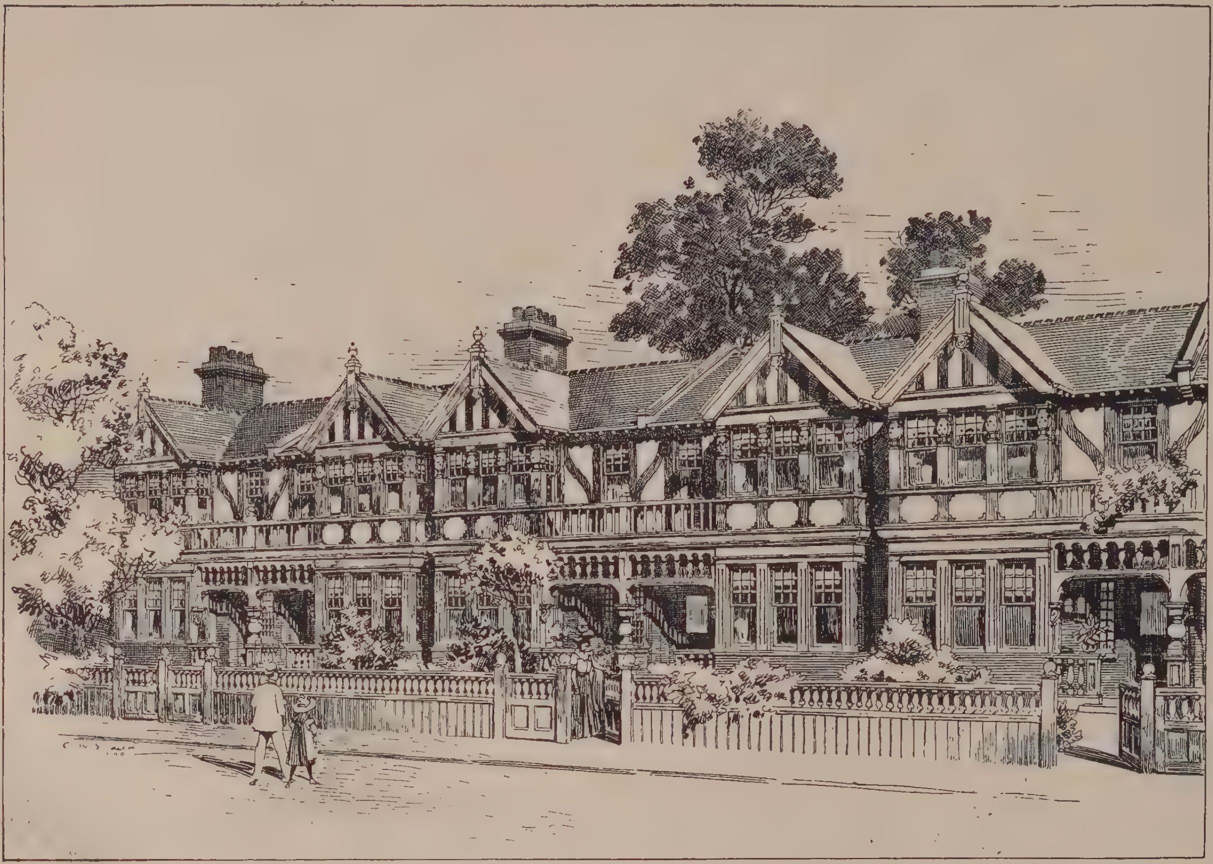
There are other buildings where a special appointment occupies a much less place in the design ; as, for example, in warehouses, factories, agricultural buildings, laborers' dwellings, and common houses, where everything is of the plainest description, and of no special design, and where the rooms may be of any shape. In these the architect may be free to devote his attention more to the general effect or mass of his design. It may, indeed, be an advantage, as in a group of cottages, to study the grouping and artistic design, the details being of little importance ; though some skill is necessary in the design of small cottages, as in the provision of certain conveniences that enable a living-room to become also a cooking-room by providing those little articles like shelves, dressers, &c., near the fireplace. Yet in general it seems, we think, that in proportion to the simplicity and homogeneity of the structure, the stronger becomes the claim for considering the general outline and mass. The more complex the plan, the less it becomes under the control of the artistic function of the architect. This is a proposition that we have not seen stated in works on design very clearly ; but it is one that receives confirmation and support from many of our buildings. The more complex they are in plan the less they appear to be governed by artistic principles of composition or modeling. Take, for example, our infirmaries, our prisons, our hospitals. Those which are simple in function, such as the village church or a simple cottage, or a group of farm buildings, are the most picturesque and amenable to the artist.

Homogeneousness of structure and singleness of purpose are qualities that lend themselves to architectural composition. A cathedral, a great monument, a palatial gallery, a mausoleum, and the like are buildings that are best treated in the lump or in mass. A partial or fragmentary study of them would be unsatisfactory—that is to say, the architect can in each of these cases model his structure as a whole, as a sculptor would model a group, regarding less the structural detail than the effect of the whole. He works, so to speak, as he would in a plastic material, or as the sculptor does in stone, and he produces a monumental result. If he were to differentiate between the materials actually employed, the result would be less harmonious, though perhaps more truthful. In other words, if we are to consider beautiful form in the abstract only, we must observe the idea of a homogeneous structure instead of one made up of several materials and parts ; but for utilitarian building we cannot consider design in the abstract—every part and material must be dealt with and expressed. If our readers have followed this argument, they cannot have any difficulty in deciding the principles that should determine which mode of designing ought to be adopted. What can be more absurd than a building intended for, say, a warehouse or wholesale commercial house, designed with porticoes, wings, cupolas, and other ambitious Classical features, when it is largely composed of shops and showrooms, and in which iron construction and special fittings enter ? These palatial features have no place in such buildings, though they would be suitable for a town-hall or court-house. They are out of place also because they are intended for stone. If we consider that all palatial and monumental architecture has been evolved from marble and stone, and that, therefore, the forms assumed belonged to the historic periods of the art, we shall at once see how ridiculous a thing it is to drag these forms into modern building requirements. The dome or cupola, the portico with its entablature and pediment, are types that are associated with temples and palaces. They are forms also that have become academical, and that can be treated better as a whole or "in the lump" than by piecemeal.

These are forms that having become, as it were, colloquial to the Classical architect, he is apt to use them in all conceivable occasions, even when his buildings would be better expressed without them, or in a quite different language. The "lumping" system is no doubt easier : it is impatient of all details or structural methods ; it is conventional, more popular, than designing in part ; it is more artistic and pictorial, and impresses the public mind ;—but, for all this, it is at variance with the spirit of our day, which absolutely looks for utility in all things—internal planning and technical perfection in every detail. The architect who has, say, a school or a laboratory or hospital to design, must first study the best types of plan and fittings, if he desires to show his professional skill ;—matters of elevation, grouping, or modeling would be of subordinate importance. If it is a modern theatre or hospital, the planner must study every detail of stage management or sick-ward ; it is no use for him to have a general knowledge, it must be special. The consequence of this modern tendency of considering buildings in detail has no doubt been one cause of the neglect of composition as an art. Outline and grouping are neglected, and we have a number of ugly ill-shaped hospitals, institutes, theatres, and other buildings. In proportion as we get more utilitarian in our tastes, so will our architecture lose grace of outline and mass. The corrective is to be found in adopting one or other of the principles mentioned, and in making composition one of the essential branches of the architect's education. The two methods of designing we have considered, which may be termed the synthetic and the analytic, have their influence in other ways. They affect draughtsmanship. What we have called the lump system designing *en bloc* favors artistic sketching. The architect can make a rough sketch of his design from a rough plan, which he can improve and touch up after he has satisfied himself of the *tout ensemble*, the balance or arrangement of the parts—it thus facilitates composition. On the other system, plain geometrical drawing appears to be the most suitable for delineating a building in detail, as each part has to be separately defined. In fact, it is the mode of



FIRST FLOOR PLAN, "WHITEHALL," RESIDENCE, H. M. FLAGLER, PALM BEACH, FLA. Carrere & Hastings, Architects. (See Plates.)



HOUSES AT CLINGFORD, ESSEX. W. I. Chambers, Architect. Examples of suburban houses now being erected to a large extent in England.

representation used by architects and engineers in plain or structural work, the method of plan, elevation, and section. As we have hinted, there is one danger in the first method—it often leads to slovenly drawing, to easy and rough methods of indicating detail, and to rough sections. We find roofs, floors, and walls simply blacked or tinted one colour, as if they were solid and of the same material. These are drawbacks of the system of *en bloc* design which can only be counteracted by detailed sections to a larger scale.

THEORY AND PRACTICE.

C. M. MORRIS.

THOSE in the profession who are just endeavoring to " find their legs," and discover the bearings of an architect's practice, often find that they have learned a great many things that they can dispense with, at least at the beginning, that they have given too much attention to branches of their profession they will probably never be able to bring into requisition or use, and too little to subjects that are of everyday importance. By placing " too many eggs in one basket" the young practitioner finds he has thrown away his opportunities. His studious habits and opportunities are perhaps gone. All his studies have perhaps been devoted to art, to draughtsmanship, to Institute competitions and prizes, and to artistic matters generally, or he has gone in mainly for the historical part of architecture, as a student of styles and archæological learning; or it may be his leanings have been towards decoration and art craftmanship, or towards the constructive parts of the profession. In whatever direction he has gone, the young practitioner sees the disproportion of these studies; how very little they come in or apply to the everyday business of an architect; it is exceedingly disheartening to him to find out how little he really knows of the practical business of his vocation, and how his art accomplishments, proud as he is of them, count for little or nothing. He regards it as an irony of circumstances that his compliance with the professional education system, his laborious studies to prepare him for the Institute examinations, have really rendered him less competent to practise than the untrained builders clerk or self-taught pupil. His knowledge of theoretical construction does not stand him in good stead when confronted with the practical exigencies of building. All his learning acquired in class-rooms and lectures appears thrown away when some practical question has to be decided. He finds that his theories and formulæ about wall stability, thrusts of arches and roofs do not compete with the rule of thumb and instinctive methods of the practical builder. They cannot always be applied, conditions and materials vary so much, and introduce elements that completely invalidate and render inapplicable all preconceived theory. The practical man's experience of bricks and mortar, bonding, the ties of floors and roofs, and cross walls, &c., enable him to decide on a thickness of wall at once more practical and reliable than any theory or formula can give; so it happens that the bricklayer's knowledge is of more immediate value than that of the student of construction. And here we may premise that much of the fault of instruction rests with our present system of education and the want of direction given to students' studies during their pupilage. If the pupil were allowed to visit buildings in progress and workshops where the actual work is being

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prepared, he would have an opportunity of discovering for himself those rudiments of building that are not learned from books and classes, and are of the essence of construction, and bring his theoretical knowledge to bear on actual work instead of general conditions that may seldom exist. He would see which questions are of everyday import, and distinguish particular and practical from general problems. But such direction is withheld or neglected; and the architectural classes and studios become the only source of instruction. The man who has the technical and administrative powers in his hands, who is a master of material and workmanship, who knows the labor on certain work, has invariably the leading hand in any building operation; he can arrange and bargain better than one who has only a superficial knowledge, and knows only the official part by routine. Yet it is very hard to convince the ordinary architectural student of the fact that an ounce of practice is worth a ton of theory. The circumstances of his training and education all lead him to regard his position as something distinct and apart; that practical building details have not much to do with him; that his training is limited to art. With these notions, he is accustomed to look down upon the mechanical and commercial aspects of architecture.

Notwithstanding these views which influence his earlier career, he soon begins to revise them. Directly he realizes his position as an intermediary between a client and the builder, that practical architecture is something more than a mere academic accomplishment, the veil falls from his eyes, and he quickly discovers that what he has learned is only one, and not the most important side of the business. He soon realizes the supreme importance of certain aspects or strongholds of his profession—matters that are continually cropping up and demanding his attention. We here notice a few of them. In the order of importance or urgency is the question of cost. He finds very often that his employment mainly depends on the expense of carrying out a certain building, or making an alteration. Perhaps his engagement or retainer is based on this question. Thus he begins to realize estimating in quite a new light, however repugnant to him. Such questions as—What will this cost? Will such an expenditure be justified, or yield a fair return on capital? Which plan will be least expensive to adopt? Is such and such a tender a fair one?—will often sicken the young architect with the mercenary and sordid views of clients. How little is the young architect prepared for this kind of inquiry! Though he may have assisted in preparing quantities, or copying out the bills, and has a vague knowledge of certain prices of building materials, he is quite thrown on his "beam ends" when such questions are put to him. He has probably never made an estimate or priced out a bill of quantities, and therefore he is unable at a short notice to give any idea of the cost of any proposed work or addition, however small. Ignorance of estimating quantities of material, and labor, and of prices, handicaps him in almost all his conferences with clients, committees, or tradesmen. In almost every turn of business, questions relating to valuation, cost, compensation, occur, and we think the general answer that would be given by the majority of architects to the question, Which kind of professional information is most in request? is that relating to cost, valuations, and general commercial or financial matters, with which the younger men are by no means familiar. These are the fundamental matters. Advice about architectural style, decoration, and the like is seldom required by the average client; but he is constantly wanting information about the cost of building such-and-such sort of building, the amount he should advance on mortgage, and various other financial questions relating to property. The public who employ the architect imagine that these

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subjects are within his duties, and those who are best grounded in these matters have naturally an advantage. We do not imagine that the architect can master all these subjects, but he can at least acquire the principles.

Another stronghold of practice is construction, by which term we more particularly refer to those branches of it which relate to sanitation, the warming and ventilation of buildings, those details, in fact, which immediately touch the interests of the employer and client. The client cares very little about the scientific trussing of a roof or construction of a floor, so long as they do not fall; but if there is anything the matter with the drains or the ventilating and warming arrangements, if he suffers from drafts, leaky roofs, damp walls, badly fitting windows, then he makes his complaint known with more or less vigour. Every architect is aware how persistent the employer is in looking to him as responsible in all these matters, what a common notion it is among ordinary people to imagine an architect's business is to see after all these things. There is a substratum of common sense in this view. When a man engages an architect he supposes that every part of the building—even drainage—will be perfect, and that good building is guaranteed, whatever else he secures by the appointment. Good building apart from architecture ought to be an impossibility. The client will always demand it, and it is well for the profession and the art that he does, for if it was once to become something different the profession of architecture would dwindle, as it would be easy to veneer a bad building and call it architecture. Again, the ordinary client looks for something tangible and practical for his money; he looks for a house that will not cost him an outlay every year for repairs and bad drains. And so it may be affirmed that these branches of construction, subordinate as they appear to the young architect, and unworthy of his serious attention, are often more lucrative, and ought to receive quite as much attention as the external design or the internal decoration.

Planning is of unquestionable importance. The external design is quite a secondary matter with those who regard building as an investment, or look for commercial results. Plan is all-important as a branch of the architect's work, and the man who can produce a workable and economical plan or is skilled in arrangement is often the successful man. But it is not everybody's gift. We know architects whose plans are more labored and intricate than clever—others who regard it as less important than elevation or external design. The man who can plan cleverly and quickly has many advantages over the mere draughtsman—clever in attractive elevations, however much the latter is in evidence in competition. As we have hinted, there should be some sense of proportion in an architect's studies.

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